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10/552,644

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Robert Gustar

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EXAMINER

LEE, BRENTIRA M

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/552,644	<b>Applicant(s)</b> GUSTAR ET AL.	
	<b>Examiner</b> BRENITRA M. LEE	<b>Art Unit</b> 2889	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 05 October 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-12,14-22 and 24-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-2, 4-7, 10-12, 14-21, 24-26 and 28-31 is/are rejected.
- 7) ☒ Claim(s) 8,9,22 and 27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 October 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>05 October 2009</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This Office Action is in response to the Applicant's amendment filed on 05 October 2009. In virtue of this amendment, claims 1-2, 4-12, 14-22 and 24-31 are currently presented in the instant application.

#### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: it is unclear as to what element is actually arranged so that the electroluminescent elements in different arrays are activatable simultaneously.

#### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 4-7, 10, 17-21 and 28-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Park et al. (U.S. Patent Application Publication 2003/0098643 A1).

With respect to claim 1, Park et al. discloses in Figure 7, a light emitting panel, comprising: a transparent substrate (20a); a plurality of electroluminescent elements (61) on the surface of the transparent substrate (20a); a plurality of dielectric elements (50a) located between the electroluminescent elements (61); and a plurality of conductive elements (32a, 42a) in contact with the dielectric elements (50a), arranged so as to apply a voltage across each of the plurality of electroluminescent elements (61) in a direction substantially parallel to the surface of the transparent substrate (20a) **(voltage is applied between the two conductive elements such that the electroluminescent layer (61) emits light).**

With respect to claim 2, Park et al. discloses all the limitations as expressly recited in claim 1, and further disclose the electroluminescent elements (61) are in the form of elongate strips of electroluminescent material (fluorescent material; See Figure 7).

With respect to claim 4, Park et al. discloses all the limitations as expressly recited in claim 1, and further discloses an alternating voltage source connected to the conductive elements (32a, 42a) (para. 0034) in such a way that the charge on adjacent dielectric elements (50a) oscillates and all the electroluminescent elements are activated simultaneously.

It is noted, the recitation "in such a way that the charge on adjacent dielectric elements (50a) oscillates and all the electroluminescent elements are activated simultaneously" cited in lines 3-4 is not of patentable merit as it is directed to an intended use or a manner of operation. A claim containing a recitation with respect to a

manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus if the prior art apparatus teaches all the structural limitations of the claim. See MPEP § 2114.

With respect to claim 5, Park et al. discloses all the limitations as expressly recited in claim 1, and further discloses an alternating voltage source connected to the conductive elements in pairs so that alternate electroluminescent elements are activated (para. 0034).

With respect to claim 6, Park et al. discloses all the limitations as expressly recited in claim 1, and further discloses an alternating voltage source connected to the conductive elements (para. 0034)

The recitation "in such a way that three or more adjacent dielectric elements are raised to the same voltage, so that the spacing between activated elements is at least two" cited in lines 2-4 is not of patentable merit as it is directed to an intended use or a manner of operation. A claim containing a recitation with respect to a manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus if the prior art apparatus teaches all the structural limitations of the claim. See MPEP § 2114.

With respect to claim 7, Shi et al. discloses all the limitations as expressly recited in claim 1, and further discloses an alternating voltage source connected to the conductive elements (para. 0034).

The recitation "in such a way that adjacent electroluminescent elements are sequentially activated so as to give the impression that a light source moves along the

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panel" cited in lines 2-4 is not of patentable merit as it is directed to an intended use or a manner of operation. A claim containing a recitation with respect to a manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus if the prior art apparatus teaches all the structural limitations of the claim. See MPEP § 2114.

With respect to claim 10, Park et al. discloses all the limitations as expressly recited in claim 1, and further disclose each conductive element (32a, 42a) is located at the surface of the transparent substrate (20a) in a gap between adjacent electroluminescent elements (61), and is completely enclosed by a dielectric element (50a) so that it does not contact an electroluminescent element (See Figure 7).

With respect to claim 17, Park et al. discloses all the limitations as expressly recited in claim 1, and further discloses a diffuser layer (para. 0006).

With respect to claims 18 and 19, Park et al. discloses all the limitations as expressly recited in claim 1, and further disclose a transparent layer (10a) arranged on the opposite side of the panel to the transparent substrate (Claim 18) (20a) and arranged to emit light through the transparent layer and the transparent substrate (Claim 19) (para. 0005; para. 0043).

With respect to claim 20, Park et al. discloses all the limitations as expressly recited in claim 1, and further discloses a plurality of selectively actuatable arrays of electroluminescent elements (16) (para. 0040).

The recitation "so that different shapes can be illuminated by activating different arrays" cited in lines 2-3 is not of patentable merit as it is directed to an intended use or

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a manner of operation. A claim containing a recitation with respect to a manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus if the prior art apparatus teaches all the structural limitations of the claim. See MPEP § 2114.

With respect to claim 21, Park et al. discloses all the limitations as expressly recited in claim 20, and further disclose the arrays are at least partially superimposed to one another (See Figure 7).

With respect to claim 28, Park et al. discloses in Figure 7, a method of manufacturing a light emitting panel, comprising: depositing a plurality of electroluminescent elements (16) on a transparent substrate (10a); depositing a plurality of dielectric elements (50a) on the substrate in the gaps between the electroluminescent elements (16) so that the dielectric elements extend further away from the substrate than the electroluminescent elements (16); and depositing a conductive element (31a, 41a) on the top of each dielectric element (50a).

With respect to claim 29, Park et al. discloses in Figure 7, a method of emitting light from a light-emitting panel, wherein the panel includes a transparent substrate (20a), a plurality of electroluminescent elements (16) on the surface of the transparent substrate (20a), a plurality of dielectric elements (50a) between the electroluminescent elements (16) in contact with the dielectric elements (50a), arranged so as to apply a voltage across each of the plurality of electroluminescent elements (16) in a direction substantially parallel to the surface of the transparent substrate (20a) (**voltage is applied between the two conductive elements such that the electroluminescent**

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**layer (61) emits light**), the method comprises: supplying an alternating voltage to alternate conductive elements (32a, 42a) so that each of the electroluminescent elements (16) is provided with an alternating voltage across it and emits light (para. 0034).

With respect to claim 30, Park et al. discloses in Figure 7, a method of emitting light from a light-emitting panel, wherein the panel includes a transparent substrate (20a), a plurality of electroluminescent elements (16) on the surface of the transparent substrate (20a), a plurality of dielectric elements (50a) located between the electroluminescent elements (16), and a plurality of conductive elements (32a, 42a) in contact with the dielectric elements (50a), arranged so as to apply a voltage across each of the plurality of electroluminescent elements (16) in a direction substantially parallel to the surface of the transparent substrate (20a) (**voltage is applied between the two conductive elements such that the electroluminescent layer (61) emits light**), the method comprising: supplying an alternating voltage to adjacent pairs of the conductive elements so as to activate a first set of alternate electroluminescent elements (16) to emit light (para. 0034).

With respect to claim 31, Park et al. discloses all the limitations as expressly recited in claim 30, and further discloses altering the adjacent pairs of conductive elements to which the alternating voltage is supplied so as to activate a second set of alternate electroluminescent elements (16) to emit light (**the alternating voltage as disclosed in para. 0034, can be applied to 31a and 41a to activate the other set of**



***electroluminescent elements 16 that correspond to the particular conductive elements).***

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al. (U.S. Patent Application Publication 2003/0098643 A1) in view of Lee (U.S. Patent Application Publication 2006/0244357 A1).

With respect to claims 11-12 and 14, Park et al. discloses all the limitations as expressly recited in claim 1, and further disclose the array of electroluminescent elements (See Figure 7). Park et al. does not disclose the electroluminescent elements emit light of different colors.

Lee discloses the electroluminescent elements (21) emit light of different colors (Claim 11), electroluminescent elements (21) arranged to emit light of a first color and a second color (Claim 12) and electroluminescent elements arranged to emit a third color (Claim 14) (Lee discloses the fluorescent layer that can be selected to emit white, green, blue, red or other colors) in order to provide a color display for a particular usage (para. 0041).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the light emitting panel of Park et al. by incorporating the electroluminescent elements that emit light of different colors as disclosed by Lee to provide a color display for a particular usage.

With respect to claim 15, the combination of Park et al. and Lee discloses all the limitations as expressly recited in claim 12. The recitation "so that the panel appears to emit light of a color made up of a combination of the colors emitted by the different arrays" cited in lines 3-4 is not of patentable merit as it is directed to an intended use or a manner of operation. A claim containing a recitation with respect to a manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus if the prior art apparatus teaches all the structural limitations of the claim. See MPEP § 2114.

It is further noted that It would have been obvious to one of ordinary skill in the art at the time the invention was made to form a panel that emits a color made up of a combination of colors emitted by the different arrays, since it was well known in the art that a panel that mix of primary colors (red, green, blue) emits a white light.

With respect to claim 16, the combination of Park et al. and Lee discloses all the limitations as expressly recited in claim 14. The recitation "the intensity of light emitted by the different arrays is variable relative to the light emitted by the other arrays" cited in lines 1-5 is not of patentable merit as it is directed to an intended use or a manner of operation. A claim containing a recitation with respect to a manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus if the prior art apparatus teaches all the structural limitations of the claim. See MPEP § 2114.

6. Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al. (U.S. Patent Application Publication 2003/0098643 A1).

7. With respect to claims 24 and 25, Park et al. discloses all the limitations as expressly recited in claim 1. Park et al. does not disclose the transparent substrate being a curved surface, in particular a cylindrical surface. All of the component parts are known in Park et al. The only difference is the actual shape of the substrate. It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the substrate with a curved surface in order to provide a desired panel shape that will be used as the backlight corresponding to the particular display or light source shape. Additionally, it would have been obvious to a person of ordinary skill in the art to try a light emitting panel having a transparent substrate with a curved surface or in particular a cylindrical surface, as a person with ordinary skill has good reason to pursue the known options within his or her technical grasp. *KSR International Co. v. Teleflex Inc.*, 550 U.S.--, 82 USPQ2d 1385 (2007).

Notwithstanding, one of ordinary skill in the art would have been led to the recited dimensions through routine experimentation and optimization. Applicant has not disclosed that the dimensions are for a particular unobvious purpose, produce an unexpected result, or are otherwise critical, and it appears prima facie that the process would possess utility using another dimension. Indeed, it has been held that mere dimensional limitations are prima facie obvious absent a disclosure that the limitations are for a particular unobvious purpose, produce an unexpected result, or are otherwise critical. See, for example, *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955); *In re Rinehart*, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976); *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984); *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). See also MPEP 2144.04(IV)(B).

8. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al. (U.S. Patent Application Publication 2003/0098643 A1) in view of Hubbell (U.S. Patent 6,422,714 B1).

With respect to claim 26, Park et al. discloses a light emitting panel including a transparent substrate (20a), a plurality of electroluminescent elements (16) on the surface of the transparent substrate (20a), a plurality of dielectric elements (50a) located between the electroluminescent elements (16), and a plurality of conductive elements (32a, 42a) in contact with the dielectric elements (50a), arranged so as to apply a voltage across each of the plurality of electroluminescent elements (16) in a direction substantially parallel to the surface of the transparent substrate (20a). Park et

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al. does not disclose a transparent, retroreflective layer and the light emitting panel within a sign panel.

Hubbell discloses in Fig. 2, a sign panel with a transparent, retroreflective layer (10, 12) (Col. 3, lines 8-9, Col. 4, lines 45-47) arranged on the opposite side of the transparent substrate to the electroluminescent elements in order to ensure view of the illuminated sign at night before the retro-reflective properties are activated (Col. 1, lines 65-67, Col. 2, lines 1-4). In Fig. 2, Hubbell discloses an electroluminescent panel and the transparent retroreflective layer.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the light emitting panel of Shi et al. and replace it for the electroluminescent panel of Hubbell and have it opposing the transparent retroreflective substrate to ensure view of the illuminated sign at night before the retro-reflective properties are activated.

#### ***Allowable Subject Matter***

9. Claims 8-9, 22 and 27 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

10. Applicant's arguments, see Page 12 - 14, filed 05 October 2009, with respect to the rejection(s) of claim(s) 1, 28, 29 and 30 under 102(b) and 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn.

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However, upon further consideration, a new ground(s) of rejection is made in view of new grounds rejection.

11. Applicant's arguments are as follows:

- a. The Applicant argues with respect to claim 1, on Page 12, Shi et al. does not disclose the conductive elements, arranged so as to apply a voltage across each of the plurality of electroluminescent elements in a direction substantially parallel to the surface of the transparent substrate.
- b. Applicant argues with respect to claim 28, on Page 13, Shi et al. does not disclose depositing a conductive element on the top of each dielectric element. It is further argued that Shi describes depositing conductive layers on top of the electroluminescent elements rather than on top of the dielectric elements.
- c. Applicant argues with respect to claim 29, on Pages 13 and 14, Shi et al. does not disclose the conductive elements, arranged so as to apply a voltage across each of the plurality of electroluminescent elements in a direction substantially parallel to the surface of the transparent substrate.
- d. Applicant argues with respect to claim 30, on Page 14, Shi et al. does not disclose the conductive elements, arranged so as to apply a voltage across each of the plurality of electroluminescent elements in a direction substantially parallel to the surface of the transparent substrate.

12. Examiner's response is as follows

- a. In response to the Applicant's argument in (a), after reconsideration, the Examiner agrees Shi et al. does not disclose the conductive elements, arranged

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so as to apply a voltage across each of the plurality of electroluminescent elements in a direction substantially parallel to the surface of the transparent substrate. However, please see the new grounds rejection of claim 1.

b. In response to the Applicant's argument in (b), after reconsideration, the Examiner agrees Shi et al. does not disclose depositing a conductive element on the top of each dielectric element. It is further argued that Shi describes depositing conductive layers on top of the electroluminescent elements rather than on top of the dielectric elements. However, please see the new grounds rejection of claim 28.

c. In response to the Applicant's argument in (c), after reconsideration, the Examiner agrees Shi et al. does not disclose the conductive elements, arranged so as to apply a voltage across each of the plurality of electroluminescent elements in a direction substantially parallel to the surface of the transparent substrate. However, please see the new grounds rejection of claim 29.

d. In response to the Applicant's argument in (d), after reconsideration, the Examiner agrees Shi et al. does not disclose the conductive elements, arranged so as to apply a voltage across each of the plurality of electroluminescent elements in a direction substantially parallel to the surface of the transparent substrate. However, please see the new grounds rejection of claim 30.

#### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRENITRA M. LEE whose telephone number is

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(571)270-7552. The examiner can normally be reached on Monday-Friday 7:30 am - 6:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Toan Ton can be reached on 571-272-2303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BRENITRA M. LEE/  
Examiner, Art Unit 2889

/Karabi Guharay/  
Primary Examiner, Art Unit 2889